

## **REMARKS/ARGUMENTS**

Claims 1 to 9 are pending in the application. Claims 1 to 9 are rejected as follows:

- Claim 3 is rejected under 35 U.S.C. § 112, first paragraph;
- Claims 1 to 6, 8, and 9 are rejected under 35 U.S.C. § 112, second paragraph;
- Claims 8 and 9 are rejected under 35 U.S.C. § 101; and
- Claims 1 and 4 to 7 are rejected under 35 U.S.C. § 103(a).

Applicants are herein amending the specification and claims 1 to 6 and 8 to 9, canceling claim 7 (without prejudice or disclaimer), and adding new claims 10 and 11.

### **Amendments**

Applicants are herein amending the specification to update the cross-reference to related applications. Applicants are canceling claim 7, without prejudice or disclaimer. Applicants are also amending claims 1 to 6 and 8 to 9 to place the claims in proper format under 35 U.S.C. § 101, as compound, composition, process of making, and process of using claims. Applicants are herein amending claim 1 to exclude zero as a possible m or n. Applicants are herein amending claim 1 to more clearly recite that R<sup>2</sup> and/or R<sup>3</sup> may be a linking moiety attached to a solid phase resin. Support for the amendment may be found in the specification on, *inter alia*, page 10, line 26 to page 11, line 22. Applicants are presenting claim 3 as two separate process claims (original claim 3 and new claim 11). Applicants are also adding new claim 10 directed to a method of preventing adhesion on a foreign surface in contact with a patient, wherein the foreign surface is an implant, catheter, or heart pacemaker. Support for this new claim may be found in the specification, *inter alia*, on page 4, lines 3 to 5.

Applicants respectfully submit that no new matter is introduced by the amendments to the claims.

**Rejection under 35 U.S.C. § 112, first paragraph**

Claim 3 is rejected under 35 U.S.C. § 112, first paragraph, as allegedly lacking written description. Specifically, claim 3 is rejected for use of the phrase “functional derivative.” Applicants are herein amending claim 3 to specify a process for preparing a compound of claim 1, comprising the step of: treating a *solvate or hydrate of a compound of claim 1* with a solvolysing or hydrogenolysing agent. Applicants respectfully submit that the amendment to claim 3 renders moot the written description rejection since the claim clearly identifies that the functional derivative is a solvate or hydrate. Accordingly, applicants respectfully request the withdrawal of the rejection of claim 3 under 35 U.S.C. § 112, first paragraph.

**Rejections under 35 U.S.C. §§ 112, second paragraph, and 101**

Claims 1 to 6, 8, and 9 are rejected under 35 U.S.C. § 112, second paragraph, for allegedly being indefinite and claims 8 and 9 are rejected under 35 U.S.C. § 101. Applicants respectfully submit that claims 1 to 6, 8, and 9, as amended, are definite under 35 U.S.C. § 112, second paragraph, and that claims 8 and 9, as amended, meet the statutory requirements of 35 U.S.C. § 101.

It is asserted that claims 1, 2, and 4 to 6 are not presented as proper compound claims because of use of the phrase “and their pharmaceutically tolerable salts...” Applicants are herein amending claims 1 and 2 to present them as proper compound claims, amending claim 4 to present it as a proper composition claim, and amending claims 5 and 6 to present them as proper method of use claims, thereby rendering moot the rejection of claims 1, 2, and 4 to 6 with respect to format of the claims.

It is asserted that claim 1 is not clear because it recites “solid phase”. Applicants are herein amending claim 1 to more clearly recite that R<sup>2</sup> and/or R<sup>3</sup> may be a linking moiety attached to a solid phase resin, thereby rendering moot the rejection of claim 1 with respect to this phrase.

It is asserted that claim 3 step (c) is not clear because it recites “a radical...is converted into another radical...” and “for example.” Applicants are herein amending claim 3 to remove process (c), thereby rendering moot the rejections of claim 3 with respect to these phrases.

It is asserted that claims 4 to 6 have the same scope as claim 1. Applicants are herein claim 4 to present it as a pharmaceutical composition and claims 5 and 6 as method of use claims, thereby rendering moot the rejection of claims 4 to 6 with respect to identical scope with claim 1.

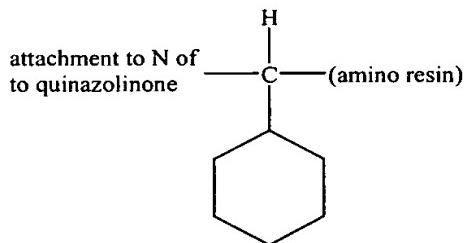
It is asserted that claims 8 and 9 allegedly provide for the use of compounds of formula I without recitation of any process steps. Applicants are herein claims 8 and 9 to present them as proper method claims reciting a method of preventing adhesion on a foreign surface in contact with a patient (claim 8) and a method of controlling a thrombotic disorder and sequelae deriving therefrom, comprising the step of administering an effective amount of compound according to claim 1. Applicants respectfully submit that the amendment to claims 8 and 9 presents them as proper method claims, thereby rendering moot the rejection of claims 8 and 9 under 35 U.S.C. § 112, second paragraph, as well as under 35 U.S.C. § 101.

Applicants respectfully request withdrawal of the rejection of the claims 1 to 6, 8, and 9 under 35 U.S.C. § 112, second paragraph, and the rejection of claims 8 and 9 under 35 U.S.C. § 101.

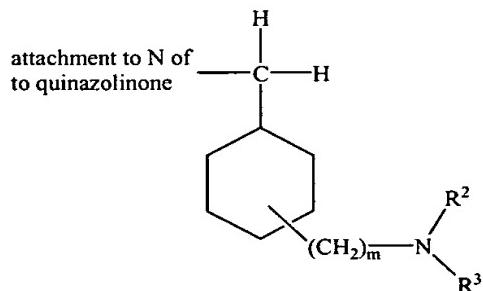
**Rejections under U.S.C. § 103(a)**

Claims 1 and 4 to 7 are rejected under 35 U.S.C. § 103 as allegedly obvious over US-A-5,783,577 or WO 98/11438 (“*Houghten*”). Applicants respectfully traverse the rejection because there is no motivation to modify the cited reference to achieve applicants’ claimed invention.

Contrary to the assertion in the Office Action, the subgenus where R<sup>1</sup> is -CH(CH<sub>2</sub>-cyclohexyl)- and Y is amino resin does not generically read on the compounds of formula I. In *Houghten*, the N-substitution group formed when R<sup>1</sup> is -CH(CH<sub>2</sub>-cyclohexyl)- and Y is amino resin forms the following structure:



whereas applicants claim, *inter alia*, compounds where the N-substitution is:



As can be noted above, there are at least two differences between the subgenus of the *Houghten* reference and the claimed compounds of formula I. First, the cyclohexyl portion of

the compounds of formula I is substituted by the group  $(CH_2)_m-N^{\begin{array}{l} R^2 \\ \diagdown \\ R^3 \end{array}}$ , whereas the cyclohexyl group of the *Houghten* reference is unsubstituted (See column 6, line 35).

Second, the  $(CH_2)_m-N^{\begin{array}{l} R^2 \\ \diagdown \\ R^3 \end{array}}$  group may not be attached to the carbon atom adjacent to the nitrogen atom of the quinazolinone ring.

Applicants respectfully submit that it has not established in the office action that the claimed invention is *prima facie* obvious. To establish a proper *prima facie* rejection, the following elements must be shown:

- (1) the reference(s) is (are) available as prior art against the claimed invention;
- (2) the motivation (explicit or implicit) provided by the reference(s) that would have rendered the claimed invention obvious to one of ordinary skill in the art at the time of the invention;
- (3) a reasonable expectation of success;
- (4) the basis for concluding that the claimed invention would have been obvious to do, not merely obvious to try; and
- (5) the reference(s) teach(es) the claimed invention as a whole.

Applicants submit that elements 2, 3, 4 and 5 have not been established. Hence, a *prima facie* obviousness rejection is improper. *In re Grabiak*, 769 F.2d 729, 733, 226 U.S.P.Q. 870, 873 (Fed. Cir. 1983).

Applicants submit that there is no disclosure, teaching, or suggestion in *Houghten* to modify the disclosed subgenus to reach applicants' claimed invention. It is alleged that a skilled artisan would be motivated to modify the reference to achieve the presently claimed invention because "one would have expected those compounds to have a pharmacological property acknowledged by Houghten *et al.*" Applicants disagree that the cited reference suggest the utilities claimed by applicants, namely use in methods of antagonizing glycoprotein IbIX receptors, controlling a thrombotic disorder and sequelae deriving therefrom, or preventing adhesion on a foreign surface in contact with a patient. *Houghten*, on the other hand, discloses the use of its compounds for their "hypnotic, sedative, analgesic, anticonvulsant, antitussive, and anti-inflammatory effects." Applicants submit that there is no established connection between the agents useful for their hypnotic, sedative, analgesic, anticonvulsant, antitussive, and anti-inflammatory effects" and agents useful for antagonizing glycoprotein IbIX receptors, controlling a thrombotic disorder and sequelae deriving therefrom, or preventing adhesion on a foreign surface in contact with a patient. Accordingly, it is respectfully submitted that a skilled artisan would have no expectation that the compounds of *Houghten* would be useful in methods of antagonizing glycoprotein IbIX

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receptors, controlling a thrombotic disorder and sequelae deriving therefrom, or preventing adhesion on a foreign surface in contact with a patient and thus would have no motivation to modify the reference, especially in a manner achieved by applicants' claimed invention.

Accordingly, applicants respectfully request withdrawal of the rejection of claims 1 and 4 to 7 under 35 U.S.C. § 103(a) over US-A-5,783,577 or WO 98/11438 ("Houghten").

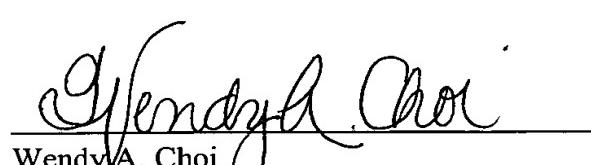
**Conclusions**

Applicants respectfully request:

- (1) entry of the amendments to the specification and claims;
- (2) reconsideration and withdrawal of the rejection of the claims; and
- (3) allowance of claims 1 to 6 and 8 to 11.

If the Examiner is of a contrary view, the Examiner is requested to contact the undersigned attorney at (215) 557-3861.

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